

Celtis laevigata - *Fraxinus pennsylvanica* - *Acer negundo* - (*Juglans nigra*) / *Asimina triloba* / *Carex grayi* Forest

COMMON NAME	Sugarberry - Green Ash - Box Elder - (Black Walnut) / Common Pawpaw / Gray's Sedge Forest
SYNONYM	
PHYSIOGNOMIC CLASS	Forest (I.)
PHYSIOGNOMIC SUBCLASS	Deciduous forest (I.B.)
PHYSIOGNOMIC GROUP	Cold-deciduous forest (I.B.2.)
PHYSIOGNOMIC SUBGROUP	Natural/Semi-natural (I.B.2.N.)
FORMATION	Temporarily flooded cold-deciduous forest (I.B.2.N.d.)
ALLIANCE	<i>Fraxinus pennsylvanica</i> - <i>Ulmus americana</i> - <i>Celtis (occidentalis, laevigata)</i> Temporarily Flooded Forest Alliance
CLASSIFICATION CONFIDENCE LEVEL	1
USFWS WETLAND SYSTEM	Palustrine

RANGE

Globally

Celtis laevigata - *Fraxinus pennsylvanica* - *Acer negundo* - (*Juglans nigra*) / *Asimina triloba* / *Carex grayi* Forest occurs in the Atlantic Coastal Plain of North Carolina and South Carolina. It is likely in Virginia and Georgia. It has been documented in the floodplains of the Congaree River of South Carolina and the Roanoke River of North Carolina.

Congaree Swamp National Monument

This forest type occurs in the southern portion of the park on levees of the Congaree River.

ENVIRONMENTAL DESCRIPTION

Globally

Celtis laevigata - *Fraxinus pennsylvanica* - *Acer negundo* - (*Juglans nigra*) / *Asimina triloba* / *Carex grayi* Forest occurs on levees of brownwater rivers. Soils that support these forests are relatively fertile and loamy because of frequent flooding and resultant sediment deposition.

Congaree Swamp National Monument

Celtis laevigata - *Fraxinus pennsylvanica* - *Acer negundo* - (*Juglans nigra*) / *Asimina triloba* / *Carex grayi* Forest occurs on well-drained, relatively fertile levees of the Congaree River. These undergo frequent inundation of relatively shorter duration than areas behind the levee.

MOST ABUNDANT SPECIES

Globally

Stratum

Species

Tree canopy	<i>Acer negundo</i> , <i>Celtis laevigata</i> , <i>Fraxinus pennsylvanica</i> , <i>Liquidambar styraciflua</i> , <i>Ulmus americana</i>
Tall shrub	<i>Asimina triloba</i>
Herbaceous	<i>Arundinaria gigantea</i> , <i>Carex grayi</i> , <i>Carex louisianica</i>

USGS-NPS Vegetation Mapping Program

Congaree Swamp National Monument

Congaree Swamp National Monument

<u>Stratum</u>	<u>Species</u>
Tree canopy	<i>Celtis laevigata</i> , <i>Juglans nigra</i> , <i>Acer negundo</i> , <i>Liquidambar styraciflua</i> , <i>Ulmus americana</i>
Tree subcanopy	<i>Acer negundo</i> , <i>Juglans nigra</i>
Tall shrub	<i>Asimina triloba</i>
Herbaceous	<i>Elymus virginicus</i>

DIAGNOSTIC SPECIES

Globally

Acer negundo, *Celtis laevigata*, *Fraxinus pennsylvanica*, *Liquidambar styraciflua*, *Ulmus americana*, *Asimina triloba*, *Arundinaria gigantea*, *Carex grayi*, *Carex louisianica*

Congaree Swamp National Monument

Celtis laevigata, *Juglans nigra*, *Acer negundo*, *Liquidambar styraciflua*, *Ulmus americana*, *Lindera benzoin*, *Elymus virginicus*

VEGETATION DESCRIPTION

Globally

Celtis laevigata - *Fraxinus pennsylvanica* - *Acer negundo* - (*Juglans nigra*) / *Asimina triloba* / *Carex grayi* Forest has been previously described from the Roanoke River, North Carolina, where it occurs in two more-or-less distinct phases. Both have closed canopies codominated by *Acer negundo*, *Celtis laevigata*, *Fraxinus pennsylvanica*, *Liquidambar styraciflua*, and *Ulmus americana*. Subcanopies range from dense to sparse and are dominated by *Asimina triloba*. The relative abundance and diversity of understory herbs are inversely related to the abundance of *Asimina triloba*; however, *Arundinaria gigantea* often has a higher abundance under *Asimina*. Vines are also common, and important species include *Toxicodendron radicans*, *Parthenocissus quinquefolia*, and *Smilax rotundifolia*.

Congaree Swamp National Monument

The mostly closed canopy of this community is dominated by *Celtis laevigata*, *Juglans nigra*, *Acer negundo*, *Liquidambar styraciflua*, and *Ulmus americana*. These species are also important in the well-developed subcanopy. The Congaree Swamp occurrences differ from global occurrences by having a lesser amount of tree importance contributed by *Fraxinus pennsylvanica* and by having substantial amounts of *Juglans nigra*. A variety of other tree species are possible in these strata; these species include *Fraxinus pennsylvanica*, *Platanus occidentalis*, *Quercus laurifolia*, *Diospyros virginiana*, *Carya cordiformis*, *Quercus pagoda*, *Morus rubra*, and others. The shrub layer ranges from sparse to well-developed and is dominated by *Asimina triloba* with *Lindera benzoin*, *Ilex decidua*, and likely other species present as well. The moderately dense understory is dominated by *Elymus virginicus*. Other typical species include *Carex grayi*, *Carex retroflexa*, *Chasmanthium latifolium*, *Elephantopus carolinianus*, *Leersia lenticularis*, *Polygonum virginianum*, *Sanicula canadensis*, *Carex bromoides*, *Glyceria striata*, *Laportea canadensis*, and others. The vine stratum is moderate, and many species are possible. Among these are *Bignonia capreolata*, *Berchemia scandens*, *Parthenocissus quinquefolia*, *Smilax bona-nox*, *Smilax tamnoides*, *Vitis rotundifolia*, *Matalea carolinensis*, *Cocculus carolinus*, and *Vitis vulpina*.

OTHER NOTEWORTHY SPECIES

The exotics *Ligustrum sinense*, *Melia azedarach*, *Lonicera japonica*, and *Microstegium vimineum* are present in some occurrences of this community.

CONSERVATION RANK	G3G5
RANK JUSTIFICATION	This community type is globally relatively secure.
DATABASE CODE	CEGL004740

COMMENTS

REFERENCES

Rice, S. K., and R. K. Peet. 1997. Vegetation of the Lower Roanoke River Floodplain. Unpublished report to The Nature Conservancy. 154 p.